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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,254	11/25/2003	Yasuyuki Murakii	51270-307011	6058

7590 06/29/2004  
Roger R. Wise  
PILLSBURY WINTHROP LLP  
Suite 2800  
725 South Figueroa Street  
Los Angeles, CA 90017-5406

EXAMINER
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FLETCHER, MARLON T

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/722,254

Applicant(s)

MURAKII, YASUYUKI

Examiner

Marlon T Fletcher

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 9 and 10, are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaki et al. (US 2003/ 0110928 A1) in view of Kamiya (5,698,802).

As recited in claim 1, Yamaki et al. disclose a musical tone reproducing apparatus that is provided in a portable terminal apparatus having system storage means as a general-purpose memory for storing various data including a tone color parameter group and system control means for controlling the whole apparatus including said system storage means, and that carries out musical tone reproduction in cooperation with said system storage means and said system control means, the musical tone reproducing apparatus (figure 6), comprising: a tone generator memory (13) as a general-purpose memory in which is registered at least a tone color parameter group comprising a freely chosen number of tone color parameters read out from said system storage means; a second memory (14) into which are inputted tone color parameters from the registered tone color parameter group at a predetermined data width from said tone generator memory and from which are outputted the inputted tone color parameters; a tone generator means (21) for carrying out musical tone reproduction based on tone color parameters outputted from said second memory; and

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a tone generator control means (12) for controlling the musical tone reproducing apparatus based on commands from said system control means, wherein, based on a command for tone color parameter registration from said system control means, said tone generator control means carries out control such that predetermined addresses are given to the tone color parameters in the tone color parameter group read out from said system storage means and the tone color parameters are stored in said tone generator memory, and based on a command from said system control means to change a tone color set in said tone generator means (page 3, paragraph 36), said tone generator control means carries out control such that a tone color parameter for the tone color to be changed to is read out from a freely chosen address in said tone generator memory and is transferred to said second memory, and the tone color parameter for the tone color to be changed to is transferred from said second memory to said tone generator means (page 3, paragraphs 34 and 37).

As recited in claim 6, Yamaki et al. disclose a musical tone reproducing apparatus, wherein said tone generator means carries out the musical tone reproduction based on sequence data that has been converted into a predetermined format (page 2, paragraphs 24 and 25).

As recited in claim 9, Yamaki et al. disclose a musical tone reproducing apparatus, wherein the portable terminal apparatus has data receiving means for receiving external data, and data received by said data receiving means is stored in said system storage means (page 1, paragraph 1).

As recited in claim 10, Yamaki et al. disclose a portable terminal apparatus having a musical tone reproducing apparatus, wherein said system control means carries out a portable terminal apparatus function process as a main process (page 1, paragraph 5).

Yamaki et al. do not disclose a cache memory.

However, Kamiya (claim 1) discloses a cache memory (16) into which are inputted tone color parameters from the registered tone color parameter group at a predetermined data width from said tone generator memory and from which are outputted the inputted tone color parameters at a data width larger than the predetermined data width (figures 1-3).

As recited in claims 2 and 3, Kamiya discloses a musical tone reproducing apparatus, wherein said system control means reads out each of the tone color parameters from said tone generator memory by specifying a leading address of the predetermined addresses given to the tone color parameters; wherein said system control means writes into said system storage means and reads out from said system storage means leading addresses of the predetermined addresses given to the tone color parameters stored in said tone generator memory (column 4, lines 3-12 and lines 27-48).

As recited in claims 4, Kamiya discloses a musical tone reproducing apparatus, wherein said tone generator memory outputs to said cache memory at a data width smaller than one channel's worth of the tone color parameters (column 5, lines 1-19).

As recited in claims 5, Kamiya discloses a musical tone reproducing apparatus, wherein said cache memory outputs at least one channel's worth of the tone color parameters to said tone generator means at a time (column 5, lines 9-19).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Kamiya with the apparatus of Yamaki et al., because Yamaki provides a RAM, which would be enhance by the use of a Cache memory, which would allow temporary storage and addressing of data for fast retrieval and reproduction.

***Allowable Subject Matter***

3. Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mukaino et al. (6,570,082)


Muraki (US 2004/0069120 A1)

Murakai et al.: (US 2004/0069124 A1)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon T Fletcher whose telephone number is 571-272-2063. The examiner can normally be reached on M-W, F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Marlon T Fletcher  
Primary Examiner  
Art Unit 2837

MTF

June 27, 2004